

AD47M - MINI CIRCUIT BREAKER



DESCRIPTION / APPLICATION

A circuit breaker is an automatically operated electrical switch designed to protect an electrical circuit from damage caused by excess current from an overload or short circuit. Its basic function is to interrupt current flow after a fault is detected. Circuit breakers are rated both by the normal current that they are expected to carry, and the maximum short-circuit current that they can safely interrupt. This latter figure is the ampere interrupting capacity (AIC) of the breaker. It is in conformity with IEC 60947 standard.

MAIN TECHNICAL DATA

| | | | |
|---------------------|---|-------|--|
| Electrical Features | Standard | | SANS556-1 IEC60947-2 |
| | Rated current | A | 1, 2, 3, 4, 6, 10, 16, 20, 25, 32, 40, 50, 63 |
| | Poles | | 1P, 2P, 3P, 4P* |
| | AC Volts | V | 230V, 400V |
| | Rated frequency | Hz | 50/60 |
| | Rated breaking capacity | kA | 3 |
| Mechanical Features | Thermo-magnetic release characteristic | Curve | B*, C (white toggle), D* (orange toggle) |
| | Electrical life expectancy | times | 4000 |
| | Mechanical life expectancy | times | 10000 |
| | Protection degree | | IP20 |
| | Best Ambient temperature | °C | 30 |
| Installation | Ambient temperature (with daily average $\leq 35^{\circ}\text{C}$) | °C | -30°C to +60°C |
| | Terminal connection type | | Cable/Pin-type busbar |
| | Connection | | Top and bottom |
| | Tighten torque (max) | Nm | 2.5Nm |
| | Mounting | | DIN Rail EN 60715(35mm) by means of fast clip device |

ACCESSORIES

| | | |
|--------------------|--|-------------|
| Auxiliary contact | | CBA-AUX-XXX |
| Shunt release | | CBA-AUX-XXX |
| Under voltage trip | | UVT-XXX |
| Alarm contact | | CBA-XXX |
| Lockout | | CBA-LOCKOUT |

* Available on request

PART NUMBER EXAMPLE

| BASE NUMBER | KA RATING | POLES | AMPERAGE | CURVE |
|-------------|-----------------------|-------|----------|-------|
| CB-AD47M | 3KA | 1P | 1A | C / D |
| EXAMPLE | CB-AD47M-3101 | | | |
| | CB-AD47M-3101D | | | |

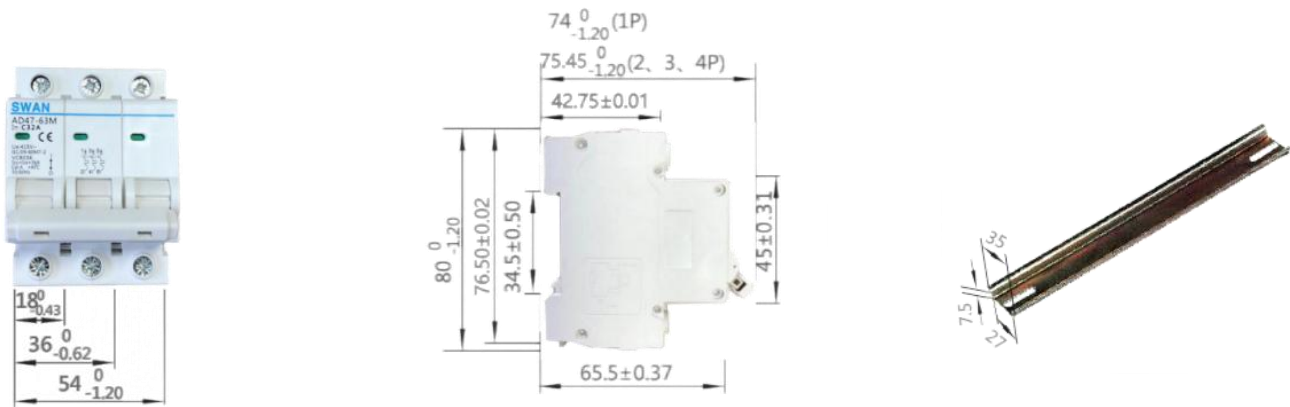
TEMPERATURE DERATING

The maximum permissible current in a circuit breaker depends on the ambient temperature where the circuit breaker is placed. Ambient temperature is the temperature inside the enclosure or switchboard in which the circuit breakers are installed. South Africa is calibrated at 40°C.

| Rated Current In(A) | Temperature compensation rate corresponding to different temperatures | | | | | | | | |
|-------------------------|---|------|------|------|------|------|------|------|------|
| | -10°C | 0°C | 10°C | 20°C | 30°C | 40°C | 50°C | 55°C | 60°C |
| 1A, 2A, 3A, 4A, 6A | 1.2 | 1.14 | 1.09 | 1.05 | 1 | 0.96 | 0.82 | 0.75 | 0.7 |
| 10A, 16A, 20A, 25A, 32A | 1.18 | 1.12 | 1.08 | 1.04 | 1 | 0.96 | 0.92 | 0.88 | 0.84 |
| 40A, 50A, 63A | 1.16 | 1.12 | 1.07 | 1.03 | 1 | 0.97 | 0.87 | 0.83 | 0.8 |

Eg.: When 1A breaker working on -10°C, 1.2A current is required(1.2A=1Ax1.2 as above chart)

DIMENSIONS AND MOUNTING



TRIPPING CURVES

C Curve

D Curve

